

## The 'wild and woolly' world of exercise referral schemes: contested interpretations of an exercise as medicine programme

Hannah E. Henderson, Adam B. Evans, Jacquelyn Allen-Collinson & Niroshan A. Siriwardena

**To cite this article:** Hannah E. Henderson, Adam B. Evans, Jacquelyn Allen-Collinson & Niroshan A. Siriwardena (2018) The 'wild and woolly' world of exercise referral schemes: contested interpretations of an exercise as medicine programme, *Qualitative Research in Sport, Exercise and Health*, 10:4, 505-523, DOI: [10.1080/2159676X.2017.1352018](https://doi.org/10.1080/2159676X.2017.1352018)

**To link to this article:** <https://doi.org/10.1080/2159676X.2017.1352018>



Published online: 15 Jul 2017.



Submit your article to this journal [↗](#)



Article views: 1443



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 7 View citing articles [↗](#)



# The 'wild and woolly' world of exercise referral schemes: contested interpretations of an exercise as medicine programme

Hannah E. Henderson<sup>a</sup> , Adam B. Evans<sup>b</sup> , Jacquelyn Allen-Collinson<sup>a</sup>  and Niroshan A. Siriwardena<sup>c</sup> 

<sup>a</sup>School of Sport and Exercise Science, University of Lincoln, Lincoln, UK; <sup>b</sup>Department of Nutrition, Exercise and Sport, University of Copenhagen, Copenhagen, Denmark; <sup>c</sup>School of Health and Social Care, University of Lincoln, Lincoln, UK

## ABSTRACT

Exercise Referral Schemes (ERS) are programmes commonly implemented in the United Kingdom to increase physical activity levels and 'treat' 'sedentary' individuals and those diagnosed with non-communicable chronic disease. The views and interpretations of stakeholders are currently under-researched, however. This paper addresses sociologically this research lacuna, presenting data from interviews with 17 ERS stakeholders (seven exercise professionals, five health professionals and five strategic managers) in a case study English county. A figurational sociological lens was adopted to provide novel insights into the meanings attached to ERS, and their contestation through service delivery models. Thematic analysis generated salient themes regarding divergent interpretations of ERS goals, and conflict within both service delivery pathways and perceptions of programme impact. Data highlighted conflicting and inconsistent stakeholder accounts within and across groups, suggesting participants attached specific, interdependent and sometimes contradictory meanings to ERS. This created conflict and generated interesting unintended consequences. Perceived divisions between strategic and local levels, and between professional groups emerged strongly. The consequences of such divisions are discussed, together with implications for future analyses of exercise as medicine programmes. Results suggest that an excessive focus upon programme impact and end-user experiences may overlook the influence of stakeholder interpretation on how and why exercise is employed as medicine, by whom, for whom and in which circumstances.

## ARTICLE HISTORY

Received 18 March 2017  
Accepted 4 July 2017

## KEYWORDS

Figurations; exercise referral schemes; stakeholder interpretation; health; primary care

## Introduction

Sport, physical activity (PA) and exercise, increasingly merged terms, are often identified with good health, whilst physical inactivity is associated with increased risk for development of prevalent non-communicable chronic diseases (Durstine *et al.* 2013, Lee *et al.* 2012, Malcolm 2017, World Health Organisation 2013, Thorp *et al.* 2011). The notion of a direct link between sport/exercise and health is often uncritically accepted so that sport/exercise is now seen as a clear site for the treatment and prevention of disease (Donaldson and Finch 2012, Malcolm 2017, Mansfield and Malcolm 2014). Consequently, the public health agenda has fixed exercise for health as a welfare policy issue related to public health, such that it is now legitimised as an antidote to biomedical and social 'problems' associated with inactive lifestyles (Honta 2016, Mansfield 2016, Misener and Misener 2016).

Nevertheless, the majority of adults and many children are insufficiently active to achieve health benefits (Department of Health 2011, World Health Organisation 2013). Despite efforts to define how best to deliver the PA 'message', effective, sustainable interventions remain elusive (Dugdill *et al.* 2005, Morgan 2005, Kelly and Barker 2016). Consequently, there has been an increased focus upon the formation of links across policy networks, often at the regional level, to bring into partnership disparate expertise, resources and service provision in programmes that 'treat' health problems via the prescription of exercise (Honta 2016, Lowndes and Skelcher 1998, Phillpots *et al.* 2011). Although 'partnerships' remain conceptually vague (Houlihan and Lindsey 2008), in general they are developed in response to divided working practices between agencies, the fragmentation of welfare services, and attempts to make service provision more equitable, efficient and effective (Mansfield 2016, Misener and Misener 2016, Powell *et al.* 2014). Such partnerships incorporate a range of agencies (Honta 2016, Mansfield 2016), including sports, health care and Primary Care (PC) organisations (e.g. Hillsdon *et al.* 2002, Crone and James 2016).

Indeed, PC organisations are amongst the strongest advocates of exercise as both preventative and curative 'medicine' (Hillsdon *et al.* 2002), in part because of their access to the (inactive, ill or 'at risk') public (Graham *et al.* 2005, Hippisley-Cox *et al.* 2007). Primary health care professionals (PHCPs) are often considered powerful sources of health advice (Graham *et al.* 2005), and policy-makers have recognised the significant potential for the promotion and prescription of exercise in this setting (NICE 2013, 2014). Hence, exercise as medicine programmes often focus upon integrating *clinical* expertise into decision-making about patient care (Powell *et al.* 2014, Sackett *et al.* 1996), privileging clinical evidence. This can be challenging to transfer into the community-setting due to the dynamics of partnerships situated within wider socio-economic and political contexts (Mansfield 2016). Some have even questioned whether PHCPs have sufficient time, training, experience, confidence or legal support to adopt such a predominant role (Bull and Bauman 2011, Ward 2014, Weiler *et al.* 2013). Partnerships between PHCPs and 'sport' and exercise service providers are therefore seen as one possible solution.

Exercise Referral Schemes (ERS) are one such partnership intended to give PC or allied health professionals the opportunity to refer patients to qualified exercise professionals for a structured, typically community-based, programme of exercise (Kahn *et al.* 2002, NHS 2001). The intention is for exercise professionals (Dugdill *et al.* 2005) to devise a tailored programme of activity using PC health and screening information whilst closely monitoring clients over a period between 10 and 16 weeks (BHF 2010, Williams *et al.* 2007). ERS therefore follow the logic of a medical model of delivery: prognosis of an extant or likely pathological problem, and subsequent 'prescription' of a course of exercise-based treatment.

Today, ERS are amongst the commonest health promotion and prevention interventions in PC (BHF 2010, Sowden and Raine 2008). In 2011, the UK Department of Health stated that 'within the new NHS, and through Health Improvement Programmes, new opportunities have emerged for collaborative services and initiatives for promoting physical activity and sport at a community level. ERS fit well in the new agenda for health improvement, and provide excellent opportunity to address inequalities in health care, disease prevention, and enhancement of quality of life' (Department of Health 2001, p. 6). Nevertheless, delivery models and standards within ERS are highly heterogeneous (Beck *et al.* 2016, Oliver *et al.* 2016). Rapid initial expansion saw many programmes delivered in an 'off-the-shelf' fashion, often uncritically copying preceding programmes, and lacking regulation, quality assurance, clearly defined goals and robust evaluation (Crone and James 2016, Dugdill *et al.* 2005, Hillsdon 1998, Oliver *et al.* 2016). Hence, outcome measures of ERS impact often differ, limiting comparison of effectiveness (NICE 2006, 2014, Pavey *et al.* 2011).

Evidence tends to assess ERS impact according to quantitative health outcome measures or predictors of adherence and attrition (Gidlow *et al.* 2008, Harrison *et al.* 2005), PA behaviour change (Morgan 2005, Williams *et al.* 2007) and programme efficiency (Williams *et al.* 2007). Qualitative analyses have focused upon participant experiences (e.g. Moore *et al.* 2013, Hardcastle and Taylor 2001, Wormald and Ingle 2004), but often fail to account for heterogeneity in ERS as a '... complex multi-stranded PA programme' (Dugdill *et al.* 2005, p. 1395) with multiple stakeholders operating across several levels of delivery (Crone and James 2016, Oliver *et al.* 2016). Hence, evaluations of programme outcomes often

overlook the complexity in wider interpretations of programme 'efficacy', development and delivery (Mutrie and Woods 2003). As Pawson (2013) outlines, outcome evaluations and randomised control trial study designs rarely pay due attention to provider interpretation and the complexity of context (Pawson 2013). Indeed, the perspectives of PCHPs and exercise professionals have seen limited attention (Moore *et al.* 2013, Gidlow *et al.* 2008, Morgan *et al.* 2016, Wormald and Ingle 2004), and evidence of resistance to attempts to regulate ERS exists (Ward 2014). Even less attention has been paid to how service providers' interpretations of ERS are co-produced according to their interactions, and how this influences service delivery and impact; all of sociological interest.

Such a focus is important, because although the provision or prescription of 'exercise as medicine' is often depicted as being linear and predictable, partnership work is rarely either. Partnerships can encounter challenges as relationships within them fluctuate according to balances between organisational (and personal) objectives, purposes and targets, or as Mansfield (2016) outlines, according to the degree of resourcefulness, reciprocity and reflexivity inherent within them. Furthermore, the assumption that networks feature members with shared purposes and goals, working in consensus have been questioned (Honta 2016, Kjaer 2011). Previous research has highlighted the paradox between the goals of partnerships to be inclusive, democratic and empowering, and the reality of partnership-working, which can be exclusionary, ineffectual and autocratic (Grix and Phillpots 2011, Mansfield 2016, Misener and Misener 2016). Partnerships are contextual, changeable and contradictory (McDonald 2005), and can be thought of as processes dependent upon the actions of service providers (Powell *et al.* 2014).

There is thus a need to analyse the human, sociocultural conditions that can create barriers to policy implementation. Here, we contribute new understandings of the complex domain of ERS, based on qualitative research into a case study ERS programme in the east of England. This investigated the ways strategic programme managers, health care professionals and exercise professionals variously defined ERS, its aims and outcomes, and how they perceived their roles and ability to influence ERS delivery. We explored similarities and differences in how these professional groups described the delivery structure of ERS, together with how they defined their own competencies, responsibilities and chains of accountability. The research also investigated whether these professional groups produced, reproduced or reinterpreted existing guidance about exercise as medicine in their own practice, both within their own roles, and also in relation to other groups within ERS, and how this practice can lead to unintended consequences in terms of ERS structure. To explore sociologically these complex group dynamics, a figurational sociological theoretical framework was adopted.

## The figurational framework

Figurational, or process sociology, is highly pertinent to understanding how the actions of all individuals within service delivery networks can influence programme delivery. Figurational sociology pursues a radical approach to understand the nexus between individual and society, agents and structures, and object and subject, so that individual 'I' identities are theorised as situated within networks of 'we' and 'they' relationships, or figurations (Elias and Schröter 1991). Within figurations, relations, tensions and conflicts between two or more connected entities at all levels of integration in society can be described according to dynamic tension balances inherent in a 'triad of controls'; that is, between extra-human, inter-human and intra-human relationships that are continuously in flux (Goudsblom 1977, pp. 137–143, Wouters 2014). These controls are constituted by several 'balances' that describe relationships in terms of control, power, dependency, information and orientation. Balances include those between competition and cooperation, external social controls and internal self-controls, power-balance, formalisation and informalisation, lust and intimacy, the We–I balance and involvement and detachment (Wouters 2014).

Hence, rather than theorising social structures, figurational webs of relationships are constituted by the people situated within them. They are connected via reciprocal relationships, or 'interdependency chains', within which the short-term actions of individuals interweave to create long-term unintended consequences beyond the control of any individual or group (Elias and Schröter 1991, p. 92, Jarvie and Maguire 1994). Furthermore, within figurations, relationships, or 'bonds of association' exist in

interdependency chains that are dynamic, contested and subject to complex tension balances which are in flux, and can be simultaneously enabling and constraining (Elias and Schröter 1991, Jarvie and Maguire 1994). Bonds of association can also be more or less dense, expand or constrict according to their relative intensity and duration (Elias and Scotson 1994). Moreover, interdependency chains have an historical or temporal aspect, and long-term 'civilising processes' have led to a lengthening of interdependency chains (Elias 1982, Maguire 2005). The concept of the figuration has been utilised in earlier figural studies of partnership working: organisational change in the NHS (Dopson and Waddington 1996, Mowles 2011), partnership working in community-based sports programmes (Powell *et al.* 2014), and unintended consequences within trajectories of care (Allen *et al.* 2004).

Furthermore, understanding individuals' positions within a figuration, together with their perceptions of their ability to influence their social position, enables analysis of how individual actions can have an impact upon the rest of a figuration (Baur and Ernst 2011). At the same time, the full extent of the interdependency chains within which people exist are often beyond their awareness (Dunning 1999). Here, again, it is important to emphasise that figurations do not exist independently of those who constitute them, and thus changes in extent, duration and characteristics of interdependency chains are also subject to limits according to the actions of individual bodies (Elias and Schröter 1991). Hence, the body forms a spatio-temporal fulcrum around which social processes act (Evans *et al.* 2016, Evans and Crust 2015).

Of direct relevance to ERS, the above processes can influence the development of 'established' or 'outsider' groups within figurations (Elias and Scotson 1994). Established groups have a greater influence in defining the accepted sociocultural norms of a figuration, and both established and outsider groups tend to define one another in interdependent terms. Elias and Scotson (1994) describe how established groups often create and reinforce collective myths by defining outsiders as law-breakers and status violators, characterising them in terms of the 'minority of the worst'. Similarly, whilst resistance is possible, outsider groups sometimes uncritically accept these characterisations (Elias and Scotson 1994). Hence, such inter- and intra-group relationships can influence gendered (Mansfield 2007), class-based (Lake 2013), ageist (Evans and Crust 2015, Evans and Sleaf 2012) and embodied (Evans *et al.* 2016) behavioural and institutional (in)action in exercise and health.

Within figural sociology, the habitus (Elias 1982, pp. 366–369) represents the juncture between conscious, socially regulated behaviours and unconscious decision-making in a way that influences identity and behaviour, but does not determine them. Hence, individuals internalise the norms and behaviours considered socially acceptable, or remain above the 'threshold of repugnance' (Elias and Dunning 1986), for example, individual responsibility for the maintenance of healthy, active lifestyles (Elias and Dunning 1986, Shilling 2003). Long-term processes including the rationalisation of health serve to valorise regulatory, 'civilising' practices and policies that cohere with the uncritical promotion of exercise as a social and personal 'good' to the point where it is regularly 'prescribed' to groups medically 'at risk' of ill-health. The way in which this promotion occurs, however, is far from uniform; civilising processes in modern societies tend towards the increasing differentiation of tasks, together with decreasing contrast (and increasing varieties) in the types of actions that are seen to be acceptable (Elias and Dunning 1986). Hence, exercise and PA promotion by a range of social actors with increasingly specific competencies and roles is increasingly commonplace, whilst the way in which they seek to achieve their goals remains varied. This can have considerable implications for those 'prescribed' exercise as medicine and for those involved in exercise delivery. We now outline the context of the study.

### Exercise referral structure in the case study ERS

The research took place in a rural county in the East Midlands of England. ERS developed here from 2000 onwards in seven districts, each offering its own version of the programme. Initially funded by small, localised investment, from 2006 the county-level National Health Services (NHS) formally commissioned ERS. Between 2006 and 2011, investment steadily increased, and the county's sports partnership (CSP) took up a strategic role within ERS alongside the newly formed county-level 'Public Health' (PH-C)

organisation, which was based in a local authority and replaced the NHS as strategic managers of ERS. This group could therefore allocate funding to district ERS programmes. Figure 1 demonstrates the organisational structure of ERS in the county.

Within each ERS, health care professionals (typically General Practitioners (GPs) and Practice Nurses, but also including physiotherapists and NHS weight loss advisors) referred patients directly to exercise professionals, who were usually exercise instructors employed in the public sector. Referrals were made for a variety of reasons, including (but not limited to) risk of cardiovascular disease, musculoskeletal disorders, psychological problems, metabolic illness, respiratory illness, neurological conditions and obesity. Exercise professionals then delivered 12-week exercise programmes to referred 'patients'. All employees were included in quarterly fora organised by the PH-C and the CSP, which also served an evaluative function. Exercise activities on offer included gym sessions, swimming, led walks, gentle group exercise classes and badminton, through a range of community facilities, private gyms and schools. Largely, ERS programmes were free of charge, and subsidised gym memberships were also offered following the programme.

## Study methods

Figurational studies can typically be situated within levels of theoretical abstraction (Baur and Ernst 2011), and our research operated at the middle-range level, focused upon the configuration of bonds of association within the case study ERS figuration, how individuals perceived their own position within, and their ability to influence this configuration, and how norms and values relating to ERS were produced, reproduced and resisted.

The figurational approach also advocates a balance between involvement and detachment as part of an ongoing reflexive process. In an attempt to reconstruct her positionality in relation to the object of research, the principal researcher sought to make explicit her positionality to the subject of research as insiders to the research field (their *verstehen*), their subjectivity as a prerequisite for grasping meaning (*perspektivität*), whilst simultaneously being aware of (and discussing) her *parteilichkeit*, or partiality

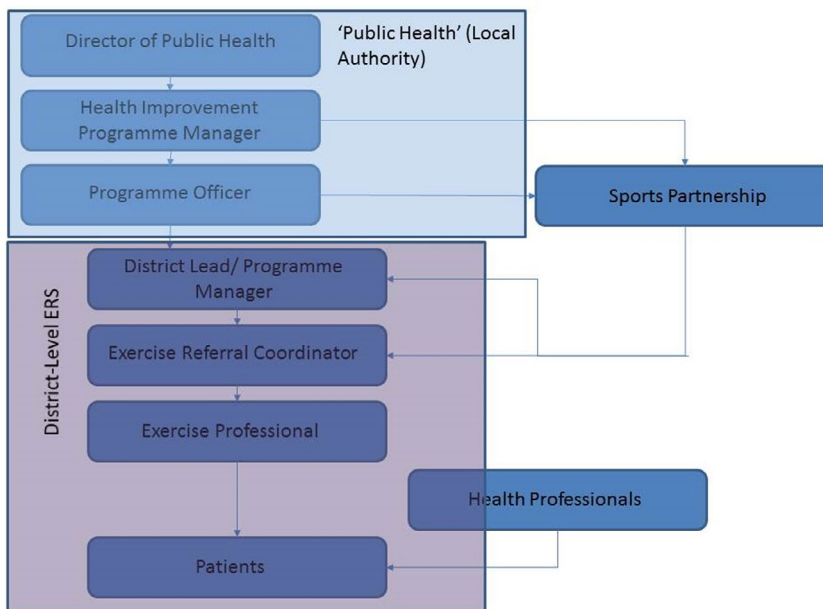


Figure 1. ERS structure in the case study county.



**Table 1.** Study participant characteristics.

Participant Pseudonym	M/F	Epoche within service delivery	Organisation	Role
Paul	M	Strategic, county	Public Health	Manager
Susan	F	Strategic, county	Public Health	Manager
Christine	F	Strategic, county	County Sports Partnership	Manager
Sam	F	Strategic, county	County Sports Partnership	Manager
Janet	F	Strategic, district	District ERS	District Manager
Malcolm	M	Service delivery, district	District ERS	ERS co-ordinator & Exercise Professional
Matt	M	Service delivery, district	District ERS	ERS co-ordinator & Exercise Professional
Natasha	F	Service delivery, district	District ERS	ERS co-ordinator & Exercise Professional
David	M	Service delivery, district	District ERS	Exercise Professional
Aidan	M	Service delivery, district	District ERS	Exercise Professional
Fran	F	Service delivery, district	District ERS	Exercise Professional
Darren	M	Service delivery, district	District ERS	Exercise Professional
Tara	F	Service delivery, healthcare	NHS	Health Professional (General Practitioner)
Pam	F	Service delivery, healthcare	NHS	Health Professional (Practice Nurse)
Julie	F	Service delivery, healthcare	NHS	Health Professional (Practice Nurse)
Daniel	M	Service delivery, healthcare	NHS	Health Professional (Physiotherapist)
Hilary	F	Service delivery, healthcare	NHS	Health Professional (NHS Weight Loss Advisor)

that could ‘distort’ research and analysis (Baur and Ernst 2011, Elias *et al.* 1987). The principal researcher had attended quarterly fora organised by PH-C and the CSP for several years, gaining experience of ongoing discussions in the case study ER figuration. Other members of the research team were outsiders to this figuration. The principal researcher utilised the minutes of these meetings as elicitation tools to reflect on what she felt she knew about the structure of the ERS figuration, its operation, and her feelings during these meetings, particularly during times of high tension or significant change. These automethodological analytic reflections as ‘headnotes’ (Allen-Collinson 2005, Evans *et al.* *in press*) were discussed amongst the research team in an attempt to delineate elements relating to her *verstehen* and *perspektivität*, but also highlighting and critically discussing elements of her *parteilichkeit*, such as political sympathies with a particular group or policy. These sensitising procedures were then taken forward into data collection and analysis and continually reflected upon through ongoing discussions within the team.

Ethical approval for the study was obtained from the NHS in the UK. Participant recruitment followed several incremental phases. Initially, a purposive sample of seven exercise professionals (responsible for exercise supervision) was recruited: five men and two women, three of whom were also ERS co-ordinators. Purposive sampling was deemed appropriate to gain data from a small population of key individuals at service delivery level (Bryman and Teevan 2004). Snowball sampling was then used to recruit five PCHPs who had worked with the exercise professionals, and were responsible for referring patients into the programme. This latter group included one GP, two practice nurses, one physiotherapist and one NHS-based Weight Loss Advisor. This second phase of recruitment was challenging, and many PCHPs declined to participate, mainly citing high workload as a reason. Subsequently, additional participants were selected from staff within the ‘strategic management’ level at district and county levels. Individuals recruited held decision-making roles within the same ERS and represented PH-C (two participants), the CSP (two participants) and one district manager responsible for the same district as that from which Exercise Professionals were recruited. Table 1 provides participant pseudonyms and roles.

Individual, semi-structured interviews were utilised. In the case of exercise professionals and strategic managers, interviews were conducted face-to-face at a time and place convenient to participants,

often in personal offices. Interviews lasted around 30 min for exercise professionals, and around 60 min for strategic managers. The same procedure proved impractical with PCHPs, who were unable to provide time and space for face-to-face interviews so telephone interviews were employed. The lack of co-presence and co-visibility of interviewer and interviewee makes cue-reading challenging, but telephone interviews enabled engagement with participants who would otherwise have been unavailable. Interviews with PCHPs lasted around 15 min. Interviews were designed to explore participants' opinions and experiences of ER from their own perspective, together with their perceptions of ERS goals and procedures.

Interview transcripts were then thematically analysed (Clarke and Braun 2014) via a six-phase process: data familiarisation, coding, searching for themes, reviewing themes through a dialectical approach to figurational-theoretical concepts and data, defining and naming themes, and writing up (Clarke and Braun 2014). This enabled the principal researcher to become immersed in and familiar with the data (see Sparkes and Smith 2013). Segments of text were identified as containing meaningful units, and a code was created and assigned to that particular segment (Thomas 2006). Hence, data analysis encompassed 'two-way traffic' between the adopted figurational-theoretical concepts, ideas, theories or models, and observations and perceptions at the semantic level (Clarke and Braun 2014, Elias *et al.* 1987: 20). The intention was to seek 'reality congruence' by trying to ensure data reflected participants' 'reality', rather than objective 'truths' (Dunning 1999). We now turn to consider salient findings.

## Results & discussion

Key identified themes related to ERS delivery pathway structure and how individuals perceived their position in relation to others (both 'We' and 'They' groups). These themes span the goals of ERS, perceptions of ERS management, dynamic and contested power hierarchies amongst ERS service providers, and the unintended consequences these trends had for the case study ERS. These factors strongly shaped how ERS was delivered 'on the ground' and in turn revealed contested meanings regarding 'exercise as medicine'.

### *The norms of the ERS figuration: perceived exercise referral goals*

Participants from all levels of service planning and delivery outlined what they considered the key aims and objectives of ERS. Perhaps as a result of the imprecision with which 'exercise' was constructed in county-level policy documents, together with the lack of a clear theory of change for the programme (Rootman 2001), it quickly became clear that multiple, often conflicting interpretations of ERS existed, suggesting that for many the purpose of ERS lacked clarity. As in other cases (Misener and Misener 2016), this led to a lack of understanding of the wider policy agenda of ERS amongst participants. Numerous references were made to general health objectives at the population level which could be achieved via the reduction of health 'problems' (particularly obesity) on an individual basis. References to vague notions of the benefits of being 'active' were also common, with the term 'exercise' used in a generalised, instrumental way. At all levels within the ERS delivery pathways, reference to specific goals or target activities was largely absent, however, Paul (PH-C), for example, in response to the question 'what do you consider the principal aims of ERS to be?' considered that ERS should:

... enable individuals to be more physically active. To enable them to experience PA that gives health benefits to alleviate their problems ... or just raise their quality of life.

Thus, Paul did not relate the goals of the programme to Department of Health (2001) guidelines, nor describe any goals set out in policy or programme documentation, indicating only that an unspecified 'increase' in PA indicated success. His statement also seemed to encompass a general, diffuse notion of 'health' at the individual level, although only quantitative data relating to markers of participant health, adherence and attrition were routinely collected at the strategic level. Similarly, Susan (PH-C) appeared unsure about the precise purpose of ERS, mentioning tackling the 'obesity agenda' but noting ERS was not specifically a weight-loss programme:



I think it says... exercise referral isn't a weight loss programme. I think when it began it probably was more of that... I think it's quite tied, it's obviously quite tied to that obesity agenda.

This lack of clarity regarding aims and purpose was also apparent in interviews with members of the CSP, the district lead, and staff at the level of service delivery. Both exercise professionals and PCHPs also held an overall belief that ERS provided an essential means of tackling 'poor health' at the level of 'the population' (David, Exercise Professional), whilst also noting having 'seen' positive impacts at the individual level. Hence, in contradiction to the wider policy guidelines, most participants situated ERS impact at the level of individual behaviour change, assuming that health would improve at the population level as a consequence. Both Exercise Professionals and PCHPs highlighted the importance of supervision in achieving such change, and referred to the need for 'safety' and 'security' amongst 'patients' during the exercise treatment. For example, Natasha (ERS Co-ordinator) identified:

... [ERS] provides ... a safer environment for them to be able to start exercising with the reassurance that there is an instructor there who might have or should have some knowledge of that particular condition and be able to give them a programme accordingly ... so I think that it can be very beneficial.

Participants were thus considered 'risky'. Such 'risky' bodies can become marginalised from mainstream spaces of exercise and health, and researchers have noted how provision of separate spaces for the prescription of exercise as medicine can be normalised (e.g. Evans and Crust 2015, Wheatley 2005, Tulle and Dorrer 2012). In this case, service providers reproduced descriptions about patients' individual physical and mental frailty during exercise, in part due to their medical diagnosis, but also in terms of previously sedentary lifestyles. In contrast to the more sweeping use of the term 'exercise' in county-level ERS policy documentation, in practice the need to tailor exercise programmes necessitated the construction of individualised programmes that were a product of the availability of facilities, the knowledge and capabilities of the prescribing expert and the preferences of the participant; no two prescriptions were identical beyond their duration in weeks.

Furthermore, ERS was not conceptualised as 'normal' exercise. The link between inactivity and illness was rationalised, rarely challenged and consequently it was frequently assumed that patients would find more mainstream spaces of exercise (such as gyms) intimidating. The re-labelling of gyms and other exercise settings as ERS spaces was construed as helpful in ensuring 'patients' could be active in a safe, controlled manner. Careful supervision of the prescribed exercise by established groups of professionals was also considered a key facet of the prescription. Notably, however, little reference was made to helping patients adapt and sustain any lifestyle change following completion or attrition from ERS, beyond vague notions of 'nursing' them back to health. The assumption seemed to exist that, once 'patients' had been shown the error of their (inactive) ways during their course of free exercise treatment, the benefits of physical activity would be so obviously apparent that they would choose to adopt more active lifestyles as a matter of course over the long-term. Care in ERS, it seems, was paternalistic in conception.

Several participants described how the goals of ERS had changed since attempts to centralise strategic decision-making across the county via the PH-C organisation in 2006. This formalisation process resulted in a shift in management approach, which sought to forge co-operative, reciprocal bonds of association across the county. Through increasing involvement in delivery processes and strategic distribution of funding, strategic management could exert a degree of control through quality assurance and accountability. All those interviewed were in agreement regarding how ERS management structure and approach had changed; for example, Paul (PH-C) noted such performance management:

... we got into a project management performance, management routine ... so it's become less *laissez faire* ... the goal is to be more typically structured than unstructured.

Paul also acknowledged that the shift to a performance management approach was in stark contrast to how ERS had originally developed (at district level from the 'ground-up'). Such attempts at policy centralisation have been common in UK sport more widely (e.g. Grix and Phillpots 2011). In response to discussion about how ERS had changed over time, Janet (district lead) reflected on similar attempts to centralise control over ERS provision:

Yes, I'd say it has [changed], probably because I have been involved for quite a long time. Initially the relationship was with the NHS [where PH-C previously resided] it was a much more fluid relationship so less prescriptive ... As time has gone on and [PH-C] moved into local authority control, things have become more prescriptive.

Participants at the strategic level, including CSP participants, explained that this approach had been necessary to try to provide a consistent, standardised, countywide mode of delivery in ERS. Despite these attempts, however, resistance to change was apparent at several levels of ERS provision. This resistance and its impact proved sociologically revealing.

### *The 'wild and woolly' world of ERS: conflict and contestation within ERS delivery figurations*

During interviews, perhaps due to participants' differing and rather vague descriptions of how exercise should be prescribed as medicine in ERS, it became apparent that service provision and the strategic management of ERS in the case study were contested. Here, 'treatment' was delivered through a complex figuration comprised of sentient 'I', 'We' and 'They' groups, situated in tensile, relational power balances which were subject to shifting balances between external and internal controls, co-operation and conflict, I–We and They relationships and power-balances. These balances influenced participants' ability to define or influence what both the 'exercise' and the 'medicine' would look like over time and in space according to the level of reciprocity in the ERS partnership. Reciprocity or mutuality refers to the 'mutual exchange of information' in partnerships, or the 'give and take of partnerships working but more particularly, reciprocity signifies the negotiation of meaning, power and identity in the partnership network' in terms of decision-making, and the maintenance of honesty and integrity at the level of interpersonal relationships (Mansfield 2016, p. 721). The degree of reciprocity therefore varied according to the extent to which the partnership was perceived to be useful and of value to partners (Mansfield 2016, Misener and Misener 2016). This had a significant impact upon how ERS was delivered. Individuals' perceptions of role and perceived influence within the ERS figuration depended upon their location within the ERS delivery pathway. Thus, strategic managers (PH-C and the CSP) tended to define their role at the county level, whilst district managers tended to associate themselves with Exercise Professionals at the district level. The CSP members, however, were considered outsiders by many participants from other groups. PCHPs remained peripheral to all other groups, in a somewhat marginal space between general health care and the ERS figuration.

Participants from both PH-C and the CSP primarily considered themselves network facilitators and partnership builders at the county level, and cited their creation of county network group fora as evidence. These meetings were open to all service providers, and managers felt they facilitated the sharing of best practice. Both Paul (PH-C) and Sam (CSP) suggested that the county network fora were designed for district level staff to give them, and one another, feedback about ERS effectiveness. Janet (district lead), however, felt that because of the way in which *all* ERS stakeholders, including third parties, were invited to network fora, her lack of familiarity with her audience limited her ability to provide valuable feedback on ERS effectiveness:

[the meetings are] rather an odd one – I have always wondered why [the meetings] do not set up as managers or instructors or contract managers. It is a mixture. I may be sat around the table with a sub-contractor or provider or someone who is directly responsible for how money is spent ... It is a bugbear for me, particularly when I have not been at a meeting, when messages have gone to staff that really I could have done with knowing first – it is not the best vehicle, sometimes aimed in the wrong direction

Consequently, Janet actually opposed sharing information that she considered unsuitable for *all* who attended, fearing she was wasting their time. Because professionals from all levels of service provision were present at meetings, it seems the gradient between formal and informal relations was skewed towards informality (Wouters 2014). Clear boundaries between job roles and competencies were blurred, and although meetings were conducted in a professional manner, lines of accountability (and therefore the character of power balances) remained opaque due to the lack of established bonds of association between all present. In short, meetings failed to produce a countywide 'We' group in ERS that could supersede district affiliation. Instead, the association of professional identity with a specific

expertise has been described as 'organisational pull' (Powell *et al.*, p. 569) and it has been shown how such we-group affiliation can exist at a level which goes beyond a programme or intervention. This we-identity is relational, defined against other professional identities in a locale or programme, and can be restrictive of partnership development (Powell *et al.* 2014). Similar to findings by Misener and Misener (2016), the difficulty of developing mutuality at steering group meetings consisting of a large and frequently changing set of stakeholders was prohibitive to the development of the programme. Moreover, there was relatively little work comparable to extensive efforts to promote integration seen in other cases of partnership working, and our findings resonate with others that illustrate the individualisation of tasks in practice according to personal interest and priorities (Honta 2016). For example, at district level, numerous references were made to a lack of clarity about roles and responsibilities coming from the strategic level. In particular the role of the CSP was questioned, as Janet highlighted when asked 'what role do the CSP play in ERS?'

[it's] difficult to say because I am not sure what [the sports partnership] brings [to the scheme] – I understand they are commissioned to provide coordination ... obviously they coordinate meetings which takes time, and the outcomes from the meetings, but it doesn't have to be that organisation that does it as anyone could perform the function in my opinion.

These sentiments were echoed by Susan (PH-C), who considered the involvement of the CSP had created unnecessary bureaucracy, making goal-setting procedures unclear:

... how it is now I see it as perhaps an unnecessary layer ... and I think there's a little bit of erm ... sort of two lines of accountability perhaps or ... you know two generals sort of running the army.

In particular, amongst other strategic-level staff the CSP were considered 'outsiders', and the principal researcher reflected upon her observations of this at network meetings. Here, CSP staff contributed very little to meeting content or discussion, beyond summarising and introducing the agenda. As the issue of ERS decommissioning became a higher priority (see below), the researcher also recalled a number of 'awkward silences' that seemed to highlight the peripheral role of the CSP. Indeed, Christine (CSP) admitted that the CSP had 'no power' in ERS because they neither funded nor delivered the programme, and had been part of the strategic management of the programme for the shortest time of any stakeholder groups. As Elias and Scotson (1994) noted, established groups tend to have bonds of association which are stronger, in part due to a longer duration within a particular figuration which build cohesion and facilitate the operation of the established group's positions of power (Lake 2013). Despite the CSP's strategic position as collators of data on programme performance, it appeared that other 'we' groups within the existing delivery pathway of the ERS still viewed them as recent interlopers, to whom they were not directly accountable beyond providing them with basic quantitative data about participant throughput and health status.

However, the limited or selective completion of 'feedback' by district-level staff was commonplace as a form of resistance from district-level staff to guidance and control from all strategic stakeholders. Whilst all participants discussed how important feedback about service quality was, the level of feedback provided depended upon the level of face-to-face interaction that staff had with one another. As in other cases examining how programmes are co-interpreted between individuals (or I–We–They configurations of bodies) (Evans *et al.* 2016), embodied, face-to-face interaction was considered crucial to ensure effective feedback provision; virtual relationships were considered less effective. Even more illuminating was discussion of where feedback was deliberately *not* provided or sought. In this regard, despite claims that they had facilitated the sharing of best practice, PH-C felt left out of the feedback loop: Susan (PH-C) explained:

[we don't get feedback] Not automatically no ... there's no mechanism for it ... feedback would largely go to the sports partnership because they've had that sort of odd role.

Such findings indicated a lack of reciprocity, or co-operative bonds of association in ERS at the strategic level. Moreover, similar trends emerged at the district level of delivery. Here, several participants outlined how ERS impact also depended upon engagement levels from local PCHPs, over whom neither PH-C nor the CSP had any direct management, and who were not invited to quarterly fora. Here, Elias'

'Game Models' theory of actions within figurations is useful in highlighting how individual and group actions can have complex and unintended consequences on service delivery trajectories (Allen *et al.* 2004). Those situated within figurations rarely have an awareness of the full extent of the interdependency chains within which they are situated, and therefore, have only a partial understanding of how their actions affect and are affected by those of all other stakeholders in a programme; the division of labour functions as an ecology of knowledge (Anspach 1997). Hence, as Allen *et al.* (2004, p. 1027) note, service providers tend to focus upon selected elements of the health/social care system without first identifying all system components and acknowledging and understanding the implications of their interdependence. Christine (CSP) underlined this feeling when she commented:

... it seems to be wild and woolly. It varies according to the provider and the relationship they have with their local GP practices.

Exercise professionals, who demonstrated a strong sense of professional affiliation and 'we-group' identity, also emphasised the lack of communication between the county and district/local ERS levels, and between themselves and PCHPs. Aidan (Exercise Professional) explained:

There is a definite miscommunication ... the negatives are definitely that there's no real communication between the council [PH-C], the GPs and us as a three way network and by us; I mean the people that are actually administering [the programme] ...

Although characterised by a degree of 'blame gossip', that is, negative labelling of 'they' groups (Elias and Scotson 1994), Exercise Professionals perceived a lack of strategic co-ordination in ERS, surmising that strategic managers at county level had little understanding of what was being delivered at ground-level. Conversely, the PH-C and CSP were well aware that districts delivered different ERS service models. What was perceived at district level as 'weak leadership' instead reflected a deliberate strategy designed to enable district managers to set their own targets and to deliver locally tailored programmes. This was coupled with a perceived inability from strategic staff to 'police' each individual ERS. Sam (CSP) explained:

So I'd say there's still lots of disparity between the quality ... coherence and certain competence of the instructors as well as the experience, the choice, the price ... it's still very, very varied ... the negatives are of course is that it is so varied and you can never control quality in this sort of environment ... and you just never would unless you're going to police it. And if you're going to police it you'd have to spend an awful lot of money on the policing of it and then you lose your delivery money.

Hence, although all strategic managers recognised service inequality, most claimed they lacked the means and the budget to regulate programmes, and local delivery mechanisms remained unchallenged. To emphasise this point, Exercise Professionals also highlighted the importance of reciprocity in local face-to-face, long-term and embodied partnership work, including good communication, supportive attitudes and consistency at the interpersonal level. This was considered particularly important between themselves and PCHPs, as Fran (Exercise Professional) expressed:

I suppose if you're working with other organisations ... I think you all need to be singing off the same page, you all need to be, want to do it and you just need to gel together as a team which is hard when you're all working from different offices.

Again, the importance of diachronic processes of informalisation came to the fore (Wouters 2014); it apparently took time for stakeholders at the district level to develop ways to work together, given their different organisational constraints. This was not always possible, particularly for PCHPs, and no PCHP talked about partnership working in the same manner. Whilst some PCHPs were considered 'advocates' of ERS, others were considered less likely to refer patients. Exercise Professionals took this to indicate a 'lack of engagement' (Malcolm) or lack of commitment to the programme, particularly amongst GPs. This description was supported in several ways. First, PCHPs' limited involvement after their referral of patients into ERS was cited, as Aidan (Exercise Professional) noted:

I mean I was under the impression that GP referral schemes was in conference with GPs ... probably a stupid idea but I always assumed that there was that, GPs got together maybe with the council and discussed it, but it doesn't seem to, you know I realise that was a naive idea ...

Second, several Exercise Professionals suggested that PCHPs did not take ERS seriously as a treatment option, and as found in other research on partnership groups (Misener and Misener 2016) this group consequently felt disrespected as a professional group. Malcolm (Exercise Professional), who referred to himself as a 'health professional' and PCHPs as 'medical professionals', highlighted issues of trust and professional boundaries:

I think what a lot of it has to do with the trust ... maybe they don't trust who they're referring into ... I think a lot of that comes because of the divide between us as in PCHPs and them as medical professionals and there being a lack of understanding of each other's speciality and there's a massive divide between the two.

Finally, it was a common opinion amongst Exercise Professionals that only a limited number of PCHPs really 'understood' or cared about ERS, or about the health benefits of PA/exercise. Incorrect completion of referral forms and failures to notify Exercise Professionals of health contraindications were cited as examples, and Fran (Exercise Professional) contrasted GPs' and physiotherapists' attitudes:

GPs, some of them are brilliant and you get loads from the same medical practice but others don't want anything to do with it and I don't know whether they don't believe in ... [that] physical activity is of benefit or they just don't recognise the scheme ... [but] we get a lot of physios – [they] are very good obviously because they come from a PA background and so they're great for referring people in.

Perhaps due to perceptions of disinterest amongst PCHPs, a number of Exercise Professionals confirmed they had not been asked for, and so did not offer, feedback on the performance of individual patients:

... in the year that I've been doing this they've never wanted feedback, they've never requested it from me, as I said they kind of refer it and that's my contact with that GP gone. (Aidan, Exercise Professional)

In contrast, PCHPs made no comment upon the professional competence of Exercise Professionals. PCHPs also reported a desire to see feedback, and Tara (GP) described how feedback about patient performance provided an insight into how motivated her patients were and how committed they were to behaviour change. As the provision of feedback from Exercise Professionals was not monitored, Exercise Professionals largely dictated how much was offered, to whom and how often. Therefore, at the local level and within ERS, Exercise Professionals were often arbiters of service delivery and feedback mechanisms. This group consistently demonstrated a strong sense of professional affiliation with a relatively cohesive and established 'we-group' identity, describing themselves as 'ultimately responsible' for ERS delivery. Their largely embodied bonds of association preceded those at county level, they were long-established, and the group often engaged in blame gossip and negative labelling of other 'they groups' including strategic staff at county level, and some PCHPs at the local level. Exercise Professionals did this by highlighting and generalising the mistakes of others, whilst suggesting that these 'They' groups did not really 'understand' ERS.

It therefore appeared that a lack of congruence, or a misalignment in discourses and values between groups (Misener and Misener 2016) existed, which created tensions between agents in the realisation of ERS objectives, particularly in terms of the assumptions through which each partner group defined the others (see Casey *et al.* 2009). As in other cases (e.g. Misener and Misener 2016), this led to a lack of understanding of the wider policy agenda of ERS, and a lack of reciprocity between sport-based and health care-based partners including a lack of common language, shared agendas and collaboration. Indeed, it has been shown how professional identities, and their relative power-status, can be defined within programmes by the level of their 'locality' to a target population, both spatially, or as in the case of the present study, in relation to the degree of separation a stakeholder had from direct delivery of the ERS programme to participants. Those closest to the level of delivery, the Exercise Professionals, often defined themselves as the ones 'really responsible' for delivery of the programme. They 'knew' the end-users, and 'saw' the impact the programme had upon their health, and therefore presented themselves as 'the established' in the ERS figuration. Conversely, those further from the point of delivery, including those in strategic positions or whose actions were primarily concerned with the referral process (not the exercise or 'treatment' process), were caricatured as 'outsiders'. In such a way, locality in relation to ERS end-users was used to signify established-group status by Exercise Professionals. In a similar way to trends described elsewhere (Powell *et al.* 2014, p. 573), this 'local' status enabled

district-level Exercise Professionals to influence what was delivered, how it was delivered and by whom. On the other hand, both PCHPs and strategic managers appeared unaware of this negative labelling, nor had a mechanism to respond directly to criticism (see Lake 2013). Notably, both groups had other significant priorities and responsibilities beyond ERS. Exercise Professionals evidently considered themselves the 'real' insiders to ERS. Moreover, the unintended consequences of these perceptual fissures within service delivery pathways were considerable.

### *Unintended consequences in the case study ERS partnership*

At the time of this research, ERS provision was under fundamental review at the county level, driven by limited resources and a growing need for demonstrable 'impact'. Primarily because of a perceived lack of demonstrable 'impact' at the level of the population, ERS provision and funding were considered under threat; Paul (PH-C) feared:

The goal was to try and reduce some disease levels and even our [the county's] obesity levels but the scale isn't big enough for that.

Interestingly in terms of ideological perspective, ERS 'impact' seemed to be defined at the population level only, in terms of the prevalence of 'disease' and 'obesity' countywide. In this sense, ERS seemed to rely upon a rather sweeping, uncritical interpretation of exercise as medicine that over-simplified the complexity of treating non-communicable diseases. This, coupled with the lack of clear goal-setting in the programme and the tendency towards 'organisational pull', meant that the establishment and maintenance of reliable feedback channels was limited at multiple levels. Exercise Professionals did not provide feedback on progression at the level of individual patients, district-level staff did not provide full feedback at network fora, and the CSP were considered outsiders even though they collated data relating to programme effectiveness. These failings were compounded because at the strategic level apparently little value was placed upon impact at the level of individual behaviour change, despite interviewees' initial assertions that ERS was a behaviour change programme. Despite failing to provide a clear definition of what constituted a sufficient magnitude of success, together with a lack of feedback data, strategic managers considered any successes to be 'small scale'. In part they blamed this on the local, rural context, but also felt that ERS was 'insufficient' at delivering changes to population health, particularly when compared with other programmes such as smoking cessation. For example, one member of PH-C stated in a meeting forum that 'the numbers simply did not add up'; which numbers, exactly, remained unclear.

Participants actually acknowledged the limitations of the programme, and exercise as medicine more generally, in achieving population-level health benefits. At district level, participants felt the initial lack of funding for ERS made a limited magnitude of impact inevitable, whilst a commitment to county-wide objectives, which were not always deemed appropriate to the local context, was seen as a significant constraint:

... so now it's 'these are the conditions you'll accept, anything outside of that isn't within the funding or the remit', so there are certain things that we used to do that we are not allowed to do really, things like cardiac rehab, for example, phase IV intervention, it isn't something that PH-C want to fund. (Janet, district lead)

Sam (CSP) also highlighted how:

... we just don't have the funds or the reach or actually the capacity to deal with those people even if they were all referred.

The consequences of this failure in partnership working quickly became clear, and blame for programme failure was swift to follow, albeit without consistent direction. Christine (CSP) emphasised how the overall 'failure' of ERS provision was due to poor local service quality:

I can't see that ... the county council are going to support it for the future whereas if it had been absolutely fantastic they would have no reason not to support it.

Conversely, Sam (also CSP) believed that the blame resided with those in national strategic positions:



If NICE ever decided to have a decent opinion about it, it would be quite worthwhile but they've been ambivalent and maintain their ambivalence and I can't quite figure out why.

What was clear at the time of research, however, was that many were fearful for the future, and Janet (district lead) expressed how ERS had become construed as an unaffordable 'luxury':

For the county I think it is bleak because it is one of those things that has become a luxury, as have many lifestyle programmes, a luxury most local authorities cannot afford in the main.

In 2016, during the period of study, central funding at the county level for ERS provision was discontinued. From a figurational perspective, such outcomes are neither planned nor foreseen. Instead, they result from the interdependent actions of all within the group, many of which are based upon inadequate knowledge of the full extent of the figuration within which individuals are situated, and their ability to influence it (Mennell 1994). The result of these actions was a withdrawal of central funding, and a return to ERS delivery mechanisms that had previously existed at the local level. Shortly after data collection was completed, members of the PH-C organisation announced the decommissioning of 'non-essential' services. ERS, it seems, was considered thus. Districts were offered the opportunity to continue to deliver ERS under their own commercial model. Some districts took the decision to continue, with their larger schemes remaining but at a cost to the patient, whilst other ERS ceased. Exercise, it appeared, was deemed too costly a medicine to fund from the public purse.

## Summary & conclusions

Here, we have presented key themes based on interview data from 17 ERS stakeholders in one case study county, spanning strategic managers, Exercise Professionals and PCHPs. Problems highlighted by participants included a lack of clearly defined goals for ERS, and tensions between the manner in which 'exercise' was conceptualised at the strategic level and at the level of delivery. From our figurational sociological perspective, interactions along interdependency chains between stakeholders at several levels of service provision resulted in contestation around how ERS services should be delivered, by whom, and what would constitute an appropriate level of 'impact'. ERS roles and responsibilities were similarly contested. Here, it is important to differentiate between the partner's assumptions, their perceptions of the value of their partners, and the social norms inherent within the partnership as a result of these two factors (Misener and Misener 2016). In this case, there was a misalignment between partners' perception of their own value, and the contribution of others in the partnership. Analogous to Misener and Misener's (2016) findings, instead of focusing on how their skills could complement those of partners, here the focus was on differences as damaging to the programme, or one group's status in relation to other groups according to the unequal power-relations in the programme (Grix and Phillpots 2011).

A lack of reciprocity in relationships was often enacted via the selective use and distribution of feedback, funding allocations, and via stigmatisation and blame gossip, through which multiple, and various 'We' groups asserted their ability to control service delivery and challenged the competencies of others. This made attempts to standardise ERS across the county challenging for strategic managers, whose attempts at governance by network were constrained by the existing, district level bonds of association between Exercise Professionals and a small number of PCHPs. Even within local networks, power-balances were contested. Exercise Professionals in particular seemed to emphasise their 'insider' knowledge of what ERS 'actually' was at the point of delivery, whilst several groups simultaneously claimed that other 'They' groups simply did not understand ERS, often to the point of identifying perceived ineptitude and group-level failings.

The qualitative findings revealed the complexities, contested nature and unintended elements of ERS; for policies and programmes, which are often considered to be standardised, are rarely uniform or delivered in intended ways. Even *intra* a particular organisation, interpretations of programme aims and objectives can widely differ. Nor are exercise/PA and health programmes merely about outcomes, impacts, or engendering positive experiences amongst 'service end-users'. Programmes are also contoured by relationships between service providers and stakeholders. Moreover, the interpretation of

service providers is not something to be controlled in health and exercise/PA programmes, nor are policies, programmes or the institutions that deliver programmes 'things' that think or act by themselves. Institutions, as figurations, are constituted by the people within and around them. Thus, from a figurational perspective, institutions are comprised of tensile, contested and changing bonds of association in interdependency chains that often extend beyond the control or awareness of individuals (Powell *et al.* 2014). Nevertheless, it is according to these interdependency chains that the actions of all intertwine to create unintended programme impacts and outcomes (Elias and Schröter 1991). This is the essence of programme emergence (Pawson 2013). Hence, multidirectional interdependency chains of relationships, both embodied and virtual, are shaped by multiple, tensile balances that change through time and space according to resources (both human and physical), creating considerable complexity in terms of how programmes are delivered, by whom, when and where. Programmes are constituted by people situated in hierarchies within and across established and outsider groups, and people produce, enact, interpret and contest policies and programmes in complex ways.

Hence, exercise as medicine programmes do not work *per se*; it is the interpretations of their subjects – or I, We and They groups, both end-users and service providers – that produce results (Pawson 2013). It has been argued that the greater number of people involved in a programme and the greater number of hands a service passes through, the greater the space for (re)interpretation, the more the impact of a programme tends towards zero (Rossi 1987). It could be added that in larger programmes there is also a greater potential for the intended actions of the few to intertwine with the actions of many others to create unintended consequences across a programme. Furthermore, health and exercise programme impact cannot be isolated from the world; they exist in the world (Pawson 2013). Resources, competencies, levels of engagement and bonds of association have a diachronic (that is, processual) nature as well as synchronic character which means that some programmes work for some people in some locations, others do not. Any simple inference of causation between individual behaviour change initiated by exercise as medicine and population-level health change is, at best, questionable. Small wonder then that attempts to standardise ERS delivery mechanisms in order to engender population-level health changes across our case study county were rendered problematic. Given the heterogeneous early development of ERS, with its reliance upon local, embodied and long-established bonds of association between Exercise Professionals and PCHPs, perhaps resistance at the local level was to be expected.

Whilst there are research limitations in terms of size and specific geographical location, this study nevertheless has implications for how exercise is considered as 'medicine'. Here, the prescribed 'medicine' is not a drug, nor does it relate to a targeted course of treatment over a given time period that aims to mitigate a specific set of symptoms. 'Sedentariness' is not a disease, it is lifestyle behaviour. Hence, exercise 'treatment' is not limited to 10 to 16 weeks; engagement in exercise is construed as being ideally maintained across a life-course. In this respect, the lack of participant references to the process of weaning participants off ERS and ensuring they adopted long-term active lifestyles, is notable. Indeed, exercise is experienced and interpreted by participants in multifaceted and complex ways that change over time. Human behaviour is complex, hard to predict, and is subject to wider social inequalities that can influence whether participants can 'choose' to adhere to their prescription at all. What's more, exercise as medicine is also interpreted and delivered according to the behaviours, beliefs and experiences of service providers. Many programmes focus upon 'getting the message across' and 'getting the packaging right' to promote the exercise 'message' in order to alter the behaviour of 'inactive' individuals one by one (Kelly and Barker 2016). They may fail, however, to recognise that the actions and interpretations of programme stakeholders can fundamentally alter messages, packaging, delivery mechanisms *and* programme receipt. Indeed, these can potentially influence the very existence of a programme. Hence, by focusing purely upon the physiological, psychological or even sociocultural impact of an exercise 'prescription' on service end-users or target populations, scholars and service providers risk failing to understand how the perceptions, norms and beliefs of those *administering* a programme of exercise as medicine can fundamentally alter its nature from case to case, context to context. As in any other figuration, therefore, the actions of individuals can have unintended consequences across

figurations; exercise as medicine is anything but predictable. This complexity, of understanding what works, for whom and in what circumstances, can only be partially explained via end-user experience.

## Acknowledgements

The authors would like to thank interview participants, without whose time and input the research could not have been completed.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Notes on contributors

**Hannah E. Henderson** is senior lecturer in Physical Activity, Exercise and Health at the University of Lincoln UK. Her research focuses on the evaluation of community-based projects, with a particular interest in complex, multi-level interventions.

**Adam B. Evans** is assistant professor in Sociology of Sport in the Department of Nutrition, Exercise and Sport, University of Copenhagen, Denmark. His research coheres around the sociology of health, sport, and Physical Activity, as well as programme evaluation of community-based projects.

**Jacquelyn Allen-Collinson** is Professor in Sociology and Physical Culture at the University of Lincoln UK. Her research focuses upon the sociology of the body, phenomenology, identity/identity work, sporting embodiment, the senses, and women in sport.

**Niroshan A. Siriwardena** is an academic general practitioner and director of the Community and Health Research Unit at University of Lincoln, UK. Since embarking on an academic career he has continued providing clinical and academic leadership in primary and prehospital care.

## ORCID

Hannah Henderson  <http://orcid.org/0000-0002-2742-4909>

Adam B. Evans  <http://orcid.org/0000-0002-8232-9912>

Jacquelyn Allen-Collinson  <http://orcid.org/0000-0003-2146-8000>

Niroshan A. Siriwardena  <http://orcid.org/0000-0003-2484-8201>

## References

- Allen, D., Griffiths, L. and Lyne, P., 2004. Understanding complex trajectories in health and social care provision. *Sociology of health and illness*, 26 (7), 1008–1030.
- Anspach, R.R., 1997. *Deciding who lives: fateful choices in the intensive-care nursery*. Los Angeles: University of California Press.
- Allen-Collinson, J., 2005. Emotions, interaction and the injured sporting body, *International Review for the Sociology of Sport*, 40 (2): 221–240.
- Baur, N. and Ernst, S., 2011. Towards a Process-oriented methodology: modern social science research methods and norbert Elias's figurational sociology. *The sociological review*, 59 (s1), 117–139.
- Beck, F.E., et al., 2016. The systematic identification of content and delivery style of an exercise intervention. *Psychology & Health*, 31 (5), 605–621.
- British Heart Foundation, 2010. *Exercise referral toolkit*. Loughborough: British Heart Foundation.
- Bryman, A. and Teevan, J.J., 2004. *Social research methods*. vol 2. Oxford: Oxford University Press.
- Bull, F.C. and Bauman, A.E., 2011. Physical inactivity: the “Cinderella” risk factor for noncommunicable disease prevention. *Journal of health communication*, 16 (sup2), 13–26.
- Casey, M.M., et al., 2009. Engaging community sport and recreation organisations in population health interventions: Factors affecting the formation, implementation, and institutionalisation of partnerships efforts. *Annals of leisure research*, 12 (2), 129–147.
- Clarke, V. and Braun, V., 2014. *Thematic analysis Encyclopedia of critical psychology*. London: Springer.
- Crone, D. and James, D., 2016. Evidence-based practice in physical activity promotion. In: A. Scott and C. Gidlow, eds. *Clinical exercise science*. London: Routledge.

- Department of Health, 2001. *Exercise referral systems: a national quality assurance framework*. London: Department for Health, 247–262.
- Department of Health, 2011. *Start active, stay active: report on physical activity in the UK*. London: Department for Health.
- Donaldson, A. and Finch, C.F., 2012. Sport as a setting for promoting health. *British journal of sports medicine*, 46 (1), 4–5.
- Dopson, S. and Waddington, I., 1996. Managing social change: a process-sociological approach to understanding organisational change within the National Health Service. *Sociology of health and illness*, 18 (4), 525–550.
- Dugdill, L., Graham, R.C. and McNair, F., 2005. Exercise referral: the public health panacea for physical activity promotion? A critical perspective of exercise referral schemes; their development and evaluation. *Ergonomics*, 48 (11–14), 1390–1410.
- Dunning, E., 1999. *Sport matters: sociological studies of sport, violence, and civilization*. London: Taylor & Francis.
- Durstine, J.L., et al., 2013. Chronic disease and the link to physical activity. *Journal of sport and health science*, 2 (1), 3–11.
- Elias, N., 1982. *The civilizing process*, 2 vols. New York: Pantheon.
- Elias, N. and Dunning, E., 1986. *Quest for excitement: sport and leisure in the civilizing process*. Oxford: Basil Blackwell.
- Elias, N. and Schröter, M., 1991. *The society of individuals*. London: Continuum International Publishing Group.
- Elias, N. and Scotson, J.L., 1994. *The established and the outsiders: a sociological enquiry into community problems*. vol 32. London: Sage Publications.
- Elias, N., Schröter, M. and Jephcott, E., 1987. *Involvement and detachment*. Oxford: Basil Blackwell.
- Evans, A. B., Henderson, H., Allen-Collinson, J. and Siriwardena, N. (in press). Reflexivity in qualitative research: Two figurational studies. Sage Online Sociological Case Studies.
- Evans, A.B. and Crust, L., 2015. 'Some of these people aren't as fit as us ...': experiencing the ageing, physically active body in cardiac rehabilitation. *Qualitative research in sport, exercise and health*, 7 (1), 13–36.
- Evans, A.B. and Sleap, M., 2012. "You feel like people are looking at you and laughing": older adults' perceptions of aquatic physical activity. *Journal of aging studies*, 26 (4), 515–526.
- Evans, A.B., et al., 2016. Personal goals, group performance and 'social' networks: participants' negotiation of virtual and embodied relationships in the 'Workplace Challenge' physical activity programme. *Qualitative research in sport, exercise and health*, 8 (3), 301–318.
- Moore, G., et al., 2013. Mixed-method process evaluation of the welsh national exercise referral scheme. *Health education*, 113 (6), 476–501.
- Gidlow, C., et al., 2008. State of the art reviews: methods of evaluation: issues and implications for physical activity referral schemes. *American journal of lifestyle medicine*, 2 (1), 46–50.
- Goudsblom, J., 1977. *Sociology in the balance: a critical essay*. Oxford: Blackwell.
- Graham, R., Dugdill, L. and Cable, N., 2005. Health professionals' perspectives in exercise referral: implications for the referral process. *Ergonomics*, 48 (11–14), 1411–1422.
- Grix, J. and Phillpots, L., 2011. Revisiting the 'governance narrative' asymmetrical network governance' and the deviant case of the sports policy sector. *Public policy and administration*, 26 (1), 3–19.
- Hardcastle, S. and Taylor, A.H., 2001. Looking for more than weight loss and fitness gain: psychosocial dimensions among older women in a primary-care exercise-referral program. *Journal of aging and physical activity*, 9 (3), 313–328.
- Harrison, R.A., Roberts, C. and Elton, P.J., 2005. Does primary care referral to an exercise programme increase physical activity one year later? A randomized controlled trial. *Journal of public health*, 27 (1), 25–32.
- Hillsdon, M., 1998. Promoting physical activity: issues in primary health care. *International journal of obesity and related metabolic disorders: journal of the International Association for the Study of Obesity*, 22, S52–54.
- Hillsdon, M., et al., 2002. Advising people to take more exercise is ineffective: a randomized controlled trial of physical activity promotion in primary care. *International journal of epidemiology*, 31 (4), 808–815.
- Hippisley-Cox, J., Fenty, J. and Heaps, M., 2007. *Trends in consultation rates in general practice 1995 to 2006: analysis of the QRESEARCH database*. London: QRESEARCH and The Information Centre for health and social care.
- Honta, M., 2016. The state and management of partnership arrangements in France: an analysis of the implementation of the 'sport, health and well-being' plan. *International journal of sport policy and politics*, 8 (4), 577–591.
- Houlihan, B. and Lindsey, I., 2008. Networks and partnerships in sport development. In: V. Girginov, ed. *Management of sports development*. London: Routledge, 225–241.
- Jarvie, G. and Maguire, J.A., 1994. *Sport and leisure in social thought*. London: Taylor & Francis.
- Kahn, E.B., et al., 2002. The effectiveness of interventions to increase physical activity – a systematic review. *American journal of preventive medicine*, 22 (4), 73–107.
- Kelly, M.P. and Barker, M., 2016. Why is changing health-related behaviour so difficult? *Public health*, 136, 109–116.
- Kjaer, A.M., 2011. Rhodes' contribution to governance theory: praise, criticism and the future governance debate. *Public administration*, 89 (1), 101–113.
- Lake, R.J., 2013. 'They treat me like I'm scum': social exclusion and established-outsider relations in a British tennis club. *International review for the sociology of sport*, 48 (1), 112–128.
- Lee, I.-M., et al., 2012. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *The lancet*, 380 (9838), 219–229.
- Lowndes, V. and Skelcher, C., 1998. The dynamics of multi-organizational partnerships: an analysis of changing modes of governance. *Public administration*, 76 (2), 313–333.
- Maguire, J.A., 2005. *Power and global sport: zones of prestige, emulation and resistance*. London: Psychology Press.

- Malcolm, D., 2017. *Sport, medicine and health: the medicalization of sport?*. London: Routledge.
- Mansfield, L., 2007. Involved-detachment: a balance of passion and reason in feminisms and gender-related research in sport, tourism and sports tourism. *Journal of sport & tourism*, 12 (2), 115–141.
- Mansfield, L., 2016. Resourcefulness, reciprocity and reflexivity: the three Rs of partnership in sport for public health research. *International journal of sport policy and politics*, 8 (4), 713–729.
- Mansfield, L. and Malcolm, D., 2014. 13 The Olympic movement, sport and health. *Health and elite sport: is high performance sport a healthy pursuit?* 38, 187–204.
- McDonald, I., 2005. Theorising partnerships: governance, communicative action and sport policy. *Journal of social policy*, 34 (04), 579–600.
- Mennell, S., 1994. The formation of we-images: a process theory. In: C. Calhoun, ed. *Social theory and the politics of identity*. Oxford: Wiley-Blackwell, 175–197.
- Misener, L. and Misener, K.E., 2016. Examining the integration of sport and health promotion: partnership or paradox? *International journal of sport policy and politics*, 8 (4), 695–712.
- Morgan, O., 2005. Approaches to increase physical activity: reviewing the evidence for exercise-referral schemes. *Public health*, 119 (5), 361–370.
- Morgan, F., et al., 2016. Adherence to exercise referral schemes by participants – what do providers and commissioners need to know? A systematic review of barriers and facilitators. *BMC public health*, 16 (1), 367.
- Mowles, C., 2011. Planning to innovate. Designing change or caught up in a game? *Perspectives public health*, 131 (3), 119–123.
- Mutrie, N. and Woods, C., 2003. How can we get people to be more active? A problem waiting to be solved. In: J. McKenna and C. Riddoch, eds. *Perspectives on health and exercise*. Basingstoke: Palgrave Macmillan, 131–152.
- National Health Service, 2001. *Exercise referral systems: a national quality assurance framework*. London: Crown Copyright.
- National Institute for Clinical Excellence, 2006. *A rapid review of the effectiveness of pedometer interventions to promote physical activity in adults*. London: National Institute for Clinical Excellence.
- National Institute for Clinical Excellence, 2013. *Physical activity: brief advice for adults in primary care*. London: National Institute for Clinical Excellence.
- National Institute for Clinical Excellence, 2014. *Physical activity: exercise referral schemes*. London: National Institute for Clinical Excellence.
- Oliver, E., et al., 2016. Exercise on referral: evidence and complexity at the nexus of public health and sport policy. *International journal of sport policy and politics*, 8 (4), 731–736.
- Pavey, T., et al., 2011. Effect of exercise referral schemes in primary care on physical activity and improving health outcomes: systematic review and meta-analysis. *BMJ*, 343, d6462.
- Pawson, R., 2013. *The science of evaluation: a realist manifesto*. London: Sage.
- Phillipps, L., Grix, J. and Quarmby, T., 2011. Centralized grassroots sport policy and ‘new governance’: a case study of county sports partnerships in the UK – unpacking the paradox. *International review for the sociology of sport*, 46 (3), 265–281.
- Powell, K., Thurston, M. and Bloyce, D., 2014. Local status and power in area-based health improvement partnerships. *Health: an interdisciplinary journal for the social study of health, illness and medicine*, 18 (6), 561–579.
- Rootman, I., 2001. *Evaluation in health promotion: principles and perspectives*. Copenhagen: WHO Regional Office Europe.
- Rossi, P., 1987. The iron law of evaluation and other metallic rules. *Research in social problems and public policy*, 4, 3–20.
- Sackett, D.L., et al., 1996. Evidence based medicine: what it is and what it isn't. *BMJ*, 312 (7023), 71–72.
- Shilling, C., 2003. *The body and social theory*. London: Sage Publications.
- Sowden, S. and Raine, R., 2008. Running along parallel lines: how political reality impedes the evaluation of public health interventions. A case study of exercise referral schemes in England. *Journal of epidemiology and community health*, 62 (9), 835–841.
- Sparkes, A.C. and Smith, B., 2013. *Qualitative research methods in sport, exercise and health: From process to product*. Abingdon: Routledge.
- Thomas, D.R., 2006. A general inductive approach for analyzing qualitative evaluation data. *American journal of evaluation*, 27 (2), 237–246.
- Thorp, A.A., et al., 2011. Sedentary behaviors and subsequent health outcomes in adults: a systematic review of longitudinal studies, 1996–2011. *American journal of preventive medicine*, 41 (2), 207–215.
- Tulle, E. and Dorner, N., 2012. Back from the brink: ageing, exercise and health in a small gym. *Ageing and society*, 32 (07), 1106–1127.
- Ward, M., 2014. Experiences in physical activity promotion in health care settings for primary prevention in the UK. *Médecine et traumatologie du sport Rivista svizzera di Medicina e traumatologia dello sport*, 62 (2), 26–28.
- Weiler, R., Murray, A. and Joy, E., 2013. Do all health care professionals have a responsibility to prescribe and promote regular physical activity: or let us carry on doing nothing. *Current sports medicine reports*, 12 (4), 272–275.
- Wheatley, E.E., 2005. Discipline and resistance: order and disorder in a cardiac rehabilitation clinic. *Qualitative health research*, 15 (4), 438–459.
- Williams, N.H., et al., 2007. Effectiveness of exercise-referral schemes to promote physical activity in adults: systematic review. *British journal of general practice*, 57 (545), 979.
- World Health Organisation, 2013. *World health statistics 2013*. Geneva: WHO.

- Wormald, H. and Ingle, L., 2004. GP exercise referral schemes: Improving the patient's experience. *Health education journal*, 63 (4), 362–373.
- Wouters, C., 2014. Universally applicable criteria for doing figurational process sociology: Seven balances, one triad. *Human figurations*, 3 (1). <http://hdl.handle.net/2027/spo.11217607.0003>